



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,730	10/25/2000	Oguz Tannikulu	2376.2001-000	3000
21005	7590	02/09/2004		
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				
			EXAMINER HAROLD, JEFFEREY F	
			ART UNIT 2644	PAPER NUMBER 14

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/696,730

Applicant(s)

TANRIKULU ET AL.

Examiner

Jefferey F. Harold

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40, 42, 43, 45, 46, 48, 49, 51 and 52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 12, 13, 15-17, 23-25, 31-34, 40, 42, 43, 46, 48, 49, 51 and 52 is/are rejected.
- 7) ☒ Claim(s) 2-11, 14, 18-22, 26-30 and 35-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement submitted on December 22, 2003, have been considered by the examiner (see attached PTO-1449).

Allowable Subject Matter

2. The indicated allowability of claims 41, 44, 47, and 50 is withdrawn in view of the reference to Park et al. (United States Patent 5,392,348). Further, after final amendment dated January 8, 2004, has been entered. In the amendment applicant combined the subject matter of claims 41, 44, 47, and 50 into independent claims 1, 17, 25, 32, 34, and 40. Rejection of the independent claims based on the newly cited reference follows.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. ***Claims 1, 12, 13, 15, 16, 17, 23-25, 31-34, 40, 42, 43, 46, 48, 49, 51 and 52*** are rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. (United States Patent 5,392,348), hereinafter referenced as Park.

Regarding **claim 1**, Park discloses DTMF detection having sample rate decimation and adaptive tone detection. In addition, Park discloses a process for determining in an audio analog signal, which reads on "electrical signal", a presence of sinusoids used to encode disabled digits, the process consisting of:

splitting the audio analog signal into subbands being at a sampling frequency of about 2kHz, as disclosed at column 8, lines 44-49 and exhibited in figures 1 and 2;

and analyzing energies within the subbands via IIR filter (26) to determine the presence of the sinusoids, as disclosed at column 8, line 50 through column 9, line 2 and exhibited in figures 1-3.

Regarding **claim 12**, Park discloses everything claimed as applied above (see claim 1), in addition, Park discloses wherein analyzing the energies consists of determining whether a summing of the energies in the subbands exceeds a minimum threshold level, as disclosed at column 10, lines 1-32 and exhibited in figure 2.

Regarding **claim 13**, the prior art of record discloses everything claimed as applied above (see claim 1), in addition, Park discloses wherein analyzing the energies comprises determining whether a difference between the energies in the subbands is below a twist test threshold, as disclosed at column 10, lines 1-9 and exhibited in figure 2.

Regarding **claim 15**, the prior art of record discloses everything claimed as applied above (see claim 1), in addition, Park discloses wherein analyzing the energies further comprises inherently reporting valid dialed digits, as one of ordinary skill in the art would recognize that the detection process would not be pursued without provide the results.

Regarding **claim 16**, the prior art of record discloses everything claimed as applied above (see claim 1), in addition, Park discloses wherein the electrical signal is

Art Unit: 2644

sampled by an analog-to-digital converter and splitting and analyzing the electrical signal is executed by a digital processor, as disclosed at column 6, lines 6-54.

Regarding **claims 23** it is interpreted and thus rejected for the reasons set forth above in the rejection of claim 16.

Regarding **claims 17, 24, 25, 31-34, 40, 42, 43, 45, 46, 48, 49, 51, and 52** they are interpreted and thus rejected for the reasons set forth above in the rejection of claim 1.

Allowable Subject Matter

4. ***Claims 2-11, 14, 18-22, 26-30, and 35-39*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F. Harold whose telephone number is (703) 306-5836. The examiner can normally be reached on Monday-Friday 9:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4800.



JFH
January 29, 2004



MINSUN OH HARVEY
PRIMARY EXAMINER